

Standard Form of a Linear Equation p 316-319

i) $y = mx + b$ - Slope/Intercept Form
 m = slope
 b = y-intercept

ii) 2 variable form
 $ax + by = c$
 (Combo questions) c = total value
 a } quantity
 b } per variable

iii) Standard Form
 $Ax + By + C = 0$

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$y = -2x + 3$ put in standard form
 $\therefore y = 2x + 3$
 $y - y = -2x - y + 3$
 $0 = -2x - y + 3$
 $+2x + y = +3$
 $+2x + y - 3 = 0$
 A value must be +ve, whole number
 $0 = +2x + y - 3$

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$y = mx + b$ $Ax + By + C = 0$

$y = \frac{2}{3}x + 5$ put in standard form

$0 = \left(\frac{2}{3}x - y + 5\right) \cdot 3$

$0 = \frac{6x}{3} - 3y + 15$

$0 = 2x - 3y + 15$

$2x - 3y + 15 = 0$
 $-3y + 15 = -2x$
 $-3y = -2x - 15$
 $\frac{-3y}{-3} = \frac{-2x}{-3} - \frac{15}{-3}$
 $y = \frac{2}{3}x + 5$

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$5x - 2y + 3 = 0$ slope/intercept form

$\frac{5x}{2} + \frac{3}{2} = \frac{+2y}{2}$ $y = mx + b$

$-2y = -5x - 3$
 $\frac{-2y}{-2} = \frac{-5x}{-2} - \frac{3}{-2}$
 $y = \frac{5}{2}x + \frac{3}{2}$

p 319 q 1-3 (abg)
 4, 5, 7, 8

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$Ax + By + C = 0$
 $2x - 3y = 12$
 $2x - 3y - 12 = 0$

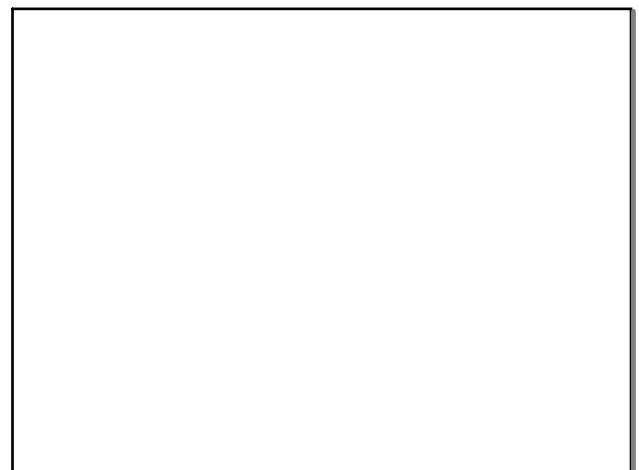
$y = 3x + 5$
 $0 = 3x - y + 5$

$\frac{1}{3} \left(\frac{x+5}{\frac{1}{3}} \right) = (2y) \cdot 3$

$x + 5 = 6y$
 $x - 6y + 5 = 0$

$3 \left(\frac{2}{3}x - 2y - 1 \right) \cdot 3$
 $\frac{6x}{3} - 6y - 10 = 0$
 $2x - 6y - 10 = 0$

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Oct 13-7:43 AM